Ethanone, 2-ethoxy-1-phenyl-

Inchi: InChI=1S/C10H12O2/c1-2-12-8-10(11)9-6-4-3-5-7-9/h3-7H,2,8H2,1H3
InchiKey: RBMWDBHKRZTOMB-UHFFFAOYSA-N
Formula: C10H12O2
SMILES: CCOCC(=O)c1ccccc1
Mol. weight [g/mol]: 164.20
CAS: 14869-39-7

Physical Properties

Property code	Value	Unit	Source
gf	-88.19	kJ/mol	Joback Method
hf	-258.00	kJ/mol	Joback Method
hfus	18.48	kJ/mol	Joback Method
hvap	49.29	kJ/mol	Joback Method
log10ws	-2.06		Crippen Method
logp	1.906		Crippen Method
mcvol	135.440	ml/mol	McGowan Method
pc	3082.99	kPa	Joback Method
tb	531.17	K	Joback Method
tc	743.85	K	Joback Method
tf	301.04	K	Joback Method
vc	0.511	m3/kmol	Joback Method

Temperature Dependent Properties

Property code	Value	Unit	Temperature [K]	Source
cpg	300.47	J/mol×K	531.17	Joback Method
cpg	361.01	J/mol×K	708.40	Joback Method
cpg	350.35	J/mol×K	672.95	Joback Method
cpg	338.99	J/mol×K	637.51	Joback Method
cpg	326.90	J/mol×K	602.06	Joback Method
cpg	314.07	J/mol×K	566.62	Joback Method
cpg	370.98	J/mol×K	743.85	Joback Method
dvisc	0.0002164	Pa×s	531.17	Joback Method
dvisc	0.0002757	Pa×s	492.81	Joback Method

dvisc	0.0003660	Pa×s	454.46	Joback Method
dvisc	0.0005118	Pa×s	416.11	Joback Method
dvisc	0.0007662	Pa×s	377.75	Joback Method
dvisc	0.0012567	Pa×s	339.39	Joback Method
dvisc	0.0023380	Pa×s	301.04	Joback Method

Sources

Joback Method:	https://en.wikipedia.org/wiki/Joback_method
McGowan Method:	http://link.springer.com/article/10.1007/BF02311772
NIST Webbook:	http://webbook.nist.gov/cgi/cbook.cgi?ID=C14869397&Units=SI
Crippen Method:	http://pubs.acs.org/doi/abs/10.1021/ci990307l
Crippen Method:	https://www.chemeo.com/doc/models/crippen_log10ws

Legend

cpg:	Ideal gas heat capacity
dvisc:	Dynamic viscosity
gf:	Standard Gibbs free energy of formation
hf:	Enthalpy of formation at standard conditions
hfus:	Enthalpy of fusion at standard conditions
hvap:	Enthalpy of vaporization at standard conditions
log10ws:	Log10 of Water solubility in mol/l
logp:	Octanol/Water partition coefficient
mcvol:	McGowan's characteristic volume
pc:	Critical Pressure
tb:	Normal Boiling Point Temperature
tc:	Critical Temperature
tf:	Normal melting (fusion) point
vc:	Critical Volume